



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**PATENT**

Serial No.: 09/975,386  
Filed: October 11, 2001  
For: Insulation Blanket With Cut Guidelines  
Inventors: Kenneth D. Knapp  
Examiner: A, Phi Dieu Tran  
Art Unit: 3637  
Atty. Doc. No.: 024-01

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**REPLY BRIEF**

Mail Stop Appeal Brief Patents  
Commissioner for Patents  
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Alexandria, VA 22313-1450

Sir:

**THE EXAMINER'S ANSWER LACKS CREDIBILITY**

The Examiner's Answer, on page 3, three lines from the bottom states that:

Ernest (figure 2) shows a blanket of fibrous building  
insulating... (sic)

That statement is flatly untrue. Ernest shows a "forced gas appliance" with insulation in it [col. 2 L. 42-51]. It has absolutely *nothing* to do with a *building*.

The Examiner's Answer states at page 4 lines 7-8:

Ernest (figure 2) shows... spots of adhesive visible through the  
perforations *at the second sheet surface* of the facing sheet...

That statement in the Examiner's Answer is also flatly untrue. Fig. 2 of Ernest shows a layer of adhesive against the *inner* or *first* surface 20b of the facing layer 20. The adhesive of Ernest is *never* "at the second sheet surface" 20a of the facing sheet 20.

The Examiner's Answer, on page 4 line 8 cites column 4 lines 15-17 as support for the proposition that in Ernest:

spots of adhesive are visible through the perforations at the second sheet surface...

Not only is that statement flatly untrue, - the citation stands for exactly the *opposite* proposition, specifically that Ernest teaches keeping the perforations from filling with adhesive, or else Ernest would not work.

By forming the perforations 26 after the facing layer 20 is adhered to the insulation layer 18 and after the adhesive 24 is cured, the perforations 26 are substantially void or free of the adhesive 24. Conversely, if the perforations 26 were formed in the facing layer 20 prior to curing the adhesive 24, the adhesive 24 could completely or at least partially fill the perforations 26. The importance of the perforations 26 being substantially void of the adhesive 24 is twofold.

Moreover, Ernest specifically states that it pushes the adhesive *out of the way* with pins 36 so that the perforations are *free of* or *void of* the adhesive:

As the pins 36 form the perforations 26, the adhesive 24 is pushed out of the way so that the perforations 26 are substantially free or void of the adhesive 24.

It is not understood why the Examiner's Answer so misstates Ernest on a point so important to the invention here.

Then, on page 4 lines 8-11, the Examiner's Answer states that Ernest discloses a:

grid of perforations comprising means defining... cut lines for cutting the facing sheet and insulation in accordance with a pattern defined by at least some of the spots of adhesive...

The Examiner's Answer on page 4 lines 14-16 goes on to state:

...the grid of perforations comprising...cut lines

Again, those last two statements are flatly untrue. There is *nothing* - -absolutely *nothing* in Ernest about using the Ernest perforations to define cut lines.

Remarkably, the Examiner's Answer states in the sentence bridging pages 6 and 7 that the rejection is "without modifying the reference". But, as is set forth above, the citations stands for exactly the opposite proposition for that which the Examiner uses it; namely the reference admonishes that one should keep the perforations free from filling with adhesive and that the pins 36 of Ernest push the adhesive out of the way so that the perforations are free of or void of the adhesive.

Then, despite all that Ernest teaches about keeping the perforations free of adhesive, and the reasons for doing so, and despite the fact that the Examiner does exactly the opposite, the following statement is actually made in the Examiner's Answer:

Secondly, examiner is unclear why applicant states that examiner wants to clog the holes of Ernst so that Ernst cannot vent the high static pressure. Examiner has done no such thing. The claims are rejected based on the teachings of the reference Ernst, not any modification thereof.

This statement is made notwithstanding Ernest's laborious explanation of the significance of keeping the perforations free of adhesive to vent the high static pressure to prevent ballooning:

By forming the perforations 26 after the facing layer 20 is adhered

to the insulation layer 18 and after the adhesive 24 is cured, the perforations 26 are substantially void or free of the adhesive 24. Conversely, if the perforations 26 were formed in the facing layer 20 prior to curing the adhesive 24, the adhesive 24 could completely or at least partially fill the perforations 26. The importance of the perforations 26 being substantially void of the adhesive 24 is twofold. First, forced gas units benefiting from this invention may be subject to various flame spread and smoke test standards. In particular, HVAC units are required to pass United Laboratories flame spread and smoke development test standard UL 2550. In order to pass the test standard defined in UL 2550, the perforations 26 need to be substantially void of the adhesive 24. Second, if the adhesive 24 were present in the perforations 26, the intended function of the perforations 26, which is to allow sufficient gas flow through the facing layer 20, would be defeated or at least compromised. Specifically, the flow rates across the pressure-balancing regions 20c, 20d cause a relatively large drop in the static pressure acting on the outer surface 20a within the pressure-balancing regions 20c, 20d. In turn, the drop in the static pressure acting on the outer surface 20a creates a relatively high difference in the static pressures acting on the outer and inner surfaces 20a, 20b within the pressure-balancing regions 20c, 20d. The perforations 26 allow for the venting of the relatively high static pressure acting on the inner surface 20b to balance or at least adequately reduce the pressure differential between the static pressures acting on the outer and inner surfaces 20a, 20b. If the flow of air through the perforations 26 is restricted by the presence of the adhesive 24 within the perforations 26, the relatively high static pressure differential between the outer and inner surfaces 20a, 20b could cause the pressure-balancing regions 20c, 20d to balloon or be drawn away from the side panels 14a, 14b.

and

As the pins 36 form the perforations 26, the adhesive 24 is pushed out of the way so that the perforations 26 are substantially free or void of the adhesive 24.

The cases cited in the Examiner's Answer likewise do not apply.

*In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971) is cited for the proposition that it supports using hindsight reasoning based upon the ordinary level of skill at the time the invention is made, as though that case applied here. It does not. There, the teaching came from the composite teachings of two references. Here, the teaching of clogging perforations and using those clogged perforations as cutting guidelines are taught nowhere in, nor suggested in Ernest. And as to clogging the holes, such is the antithesis of Ernest.

*In re Hirao and Sato* 535 F.2d 67, 190 USPQ 15 (CCPA 1976) stands for using claim recitations in the body of the claims to support patentability. [The Board of Appeals was reversed by the CCPA for failure to give weight to limitations that were in the *body* of the claims, in addition to being mentioned in the preamble]. Here the Examiner has refused to give weight to structural or process limitations in the bodies of the claims.

The Examiner's Answer miscites to *Kropa v. Robie, et al*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). This case *does not* stand for the proposition that if the process steps or structural limitations are able to stand alone, the preamble should be ignored. Rather, it stands for the opposite proposition- - that if the preamble gives life and meaning to subsequent structural or process limitations in the claims, it *must* be accorded weight, as the Court did in that case. Here, the limitations are present both in the preambles and in the bodies of the claims, so they cannot be ignored for any reason.

*In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto et al*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963) are cited for the proposition that in *process* claims there must be a manipulative difference. But those cases did not deal with process claims. Here, process claims 8 and 9 absolutely require manipulative differences, specifically:

applying a thin layer of adhesive, that is substantially thinner than the layer of fibrous insulation, to a surface of the facing material *while maintaining the adhesive at a sufficient viscosity that it will bleed into the perforations an amount sufficient to be visible from an opposite surface of the facing material.*

In addition, claim 9 recites the specific process limitation of:

cutting the blanket along a line of perforations to correspond the width of the blanket to a predetermined spacing between structural members between which a blanket of insulation is to be installed

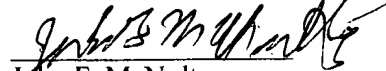
The manipulative differences cited above relative to Ernest satisfy any requirement of those cases.

In conclusion, it is submitted that the Examiner's Answer lacks credibility.

- Ernest is not directed to the subject matter of this invention.
- Ernest does not teach applying an adhesive to the rear of the facing layer, so that it bleeds through and is visible from the opposite surface of the facing layer.
- Ernest does not teach using adhesive spots that appear through the facing layer as cutting guidelines.
- Ernest does not teach cutting along perforations, in any respect.
- Ernest does not teach the cutting of insulation and its facing layer to fit between regularly spaced apart structural members *and irregularly spaced apart* structural members.
- Ernest teaches the opposite of what is represented in the Examiner's Answer as being the teaching of Ernest; namely, Ernest teaches keeping its perforations free and clear of adhesive.

Ernest is so far removed from the invention in this case as defined by the claims in this case, that reversal of the rejections and allowance of all of the claims is not only in order, but is *compelling*.

Respectfully submitted,



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